

FIG. 1
(prior art)

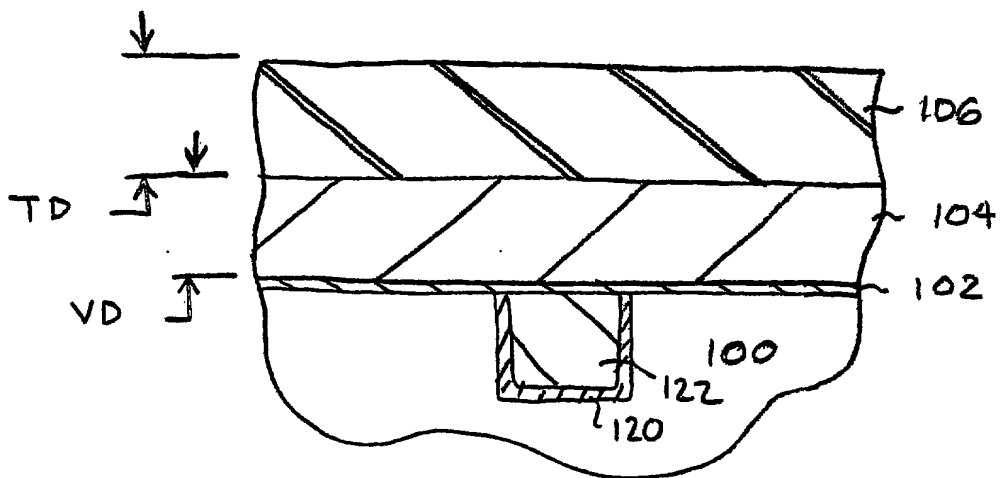


FIG. 2

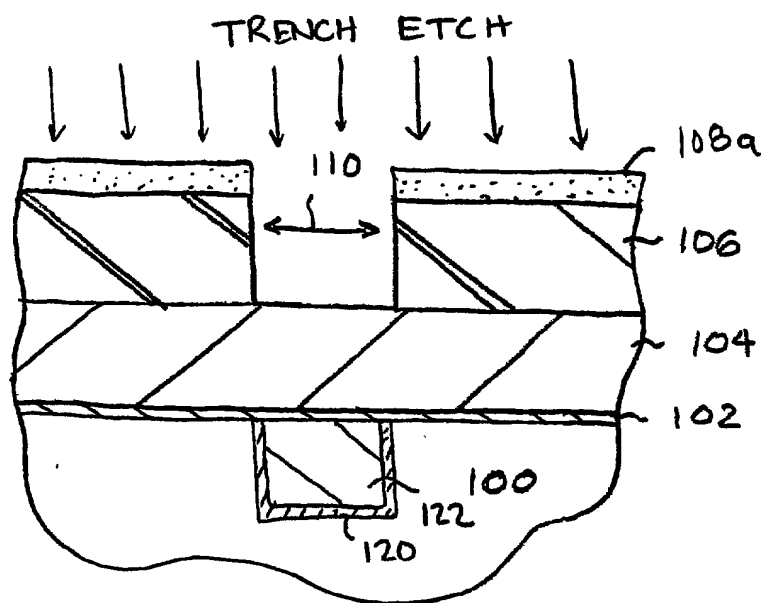


FIG. 3

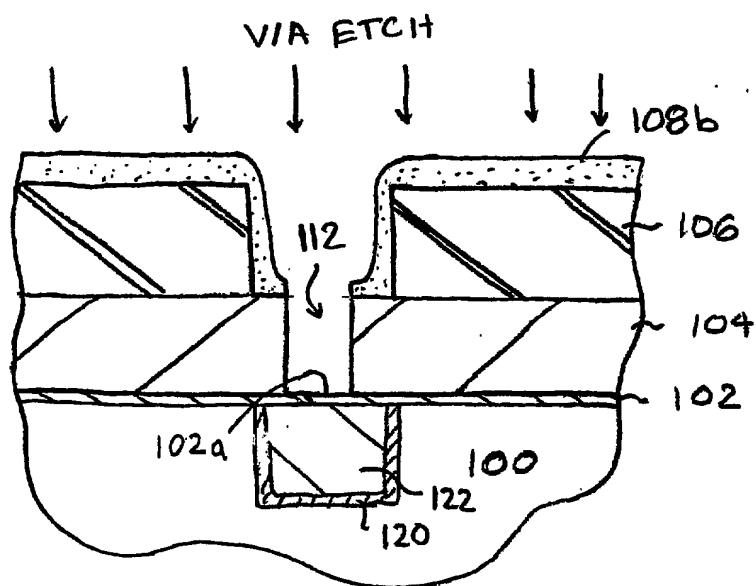


FIG. 4

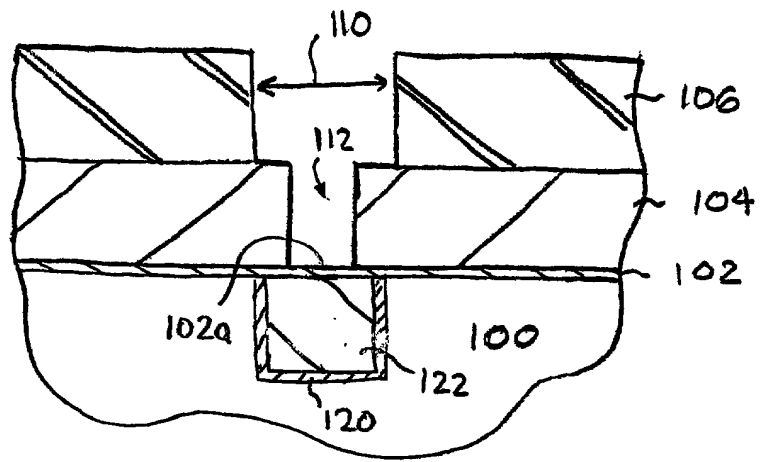


FIG. 5

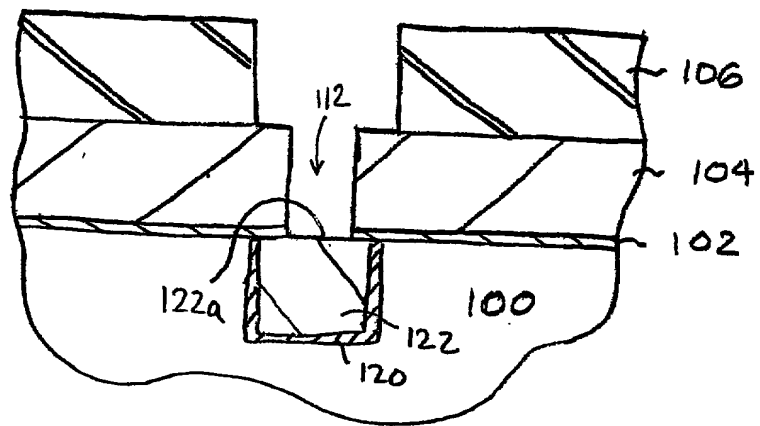


FIG. 6

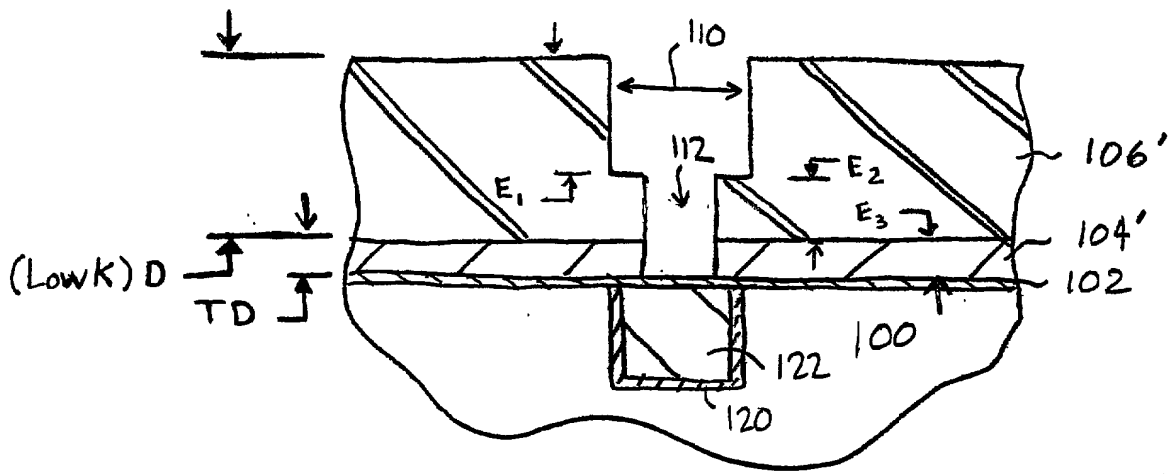


FIG. 7

Diagram 100 is a cross-sectional view of a semiconductor device. It shows a substrate with a trench 110. The trench has a bottom layer 120 and a top layer 122. A horizontal layer 102 is positioned above the trench. A textured layer 204 is on top of the trench walls. Arrows indicate thicknesses TT and DT.

A graph showing the relationship between Carbon Content (Y-axis) and Dielectric Thickness (X-axis). The curve starts at the origin (0,0) and rises sigmoidally, leveling off at a high carbon content. Key points on the curve are labeled: 230 (near the origin), 232 (on the rising portion), and 234 (on the plateau). The X-axis is marked with 0, TT, and DT. The Y-axis is marked with 0. Dashed lines indicate the coordinates of point 234: (DT, 0).

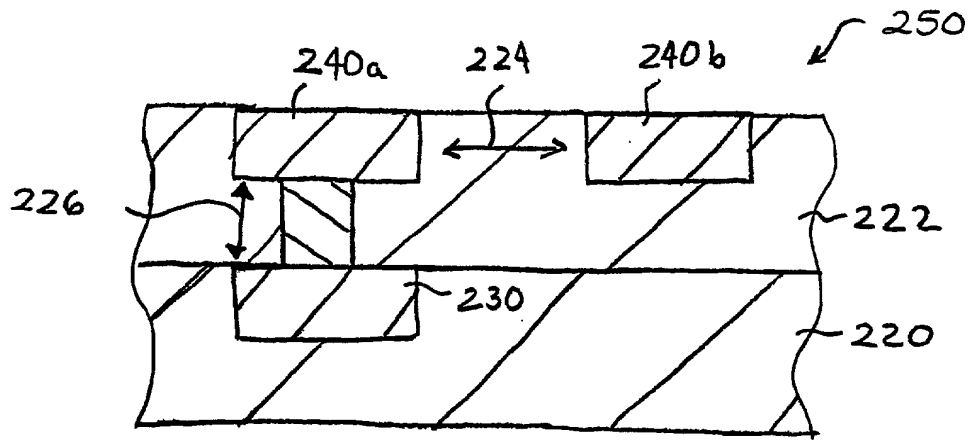


FIG. 9

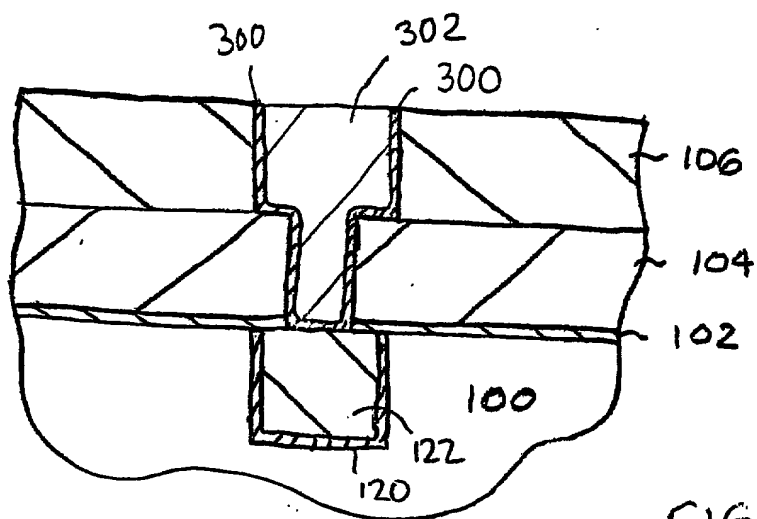


FIG. 10A

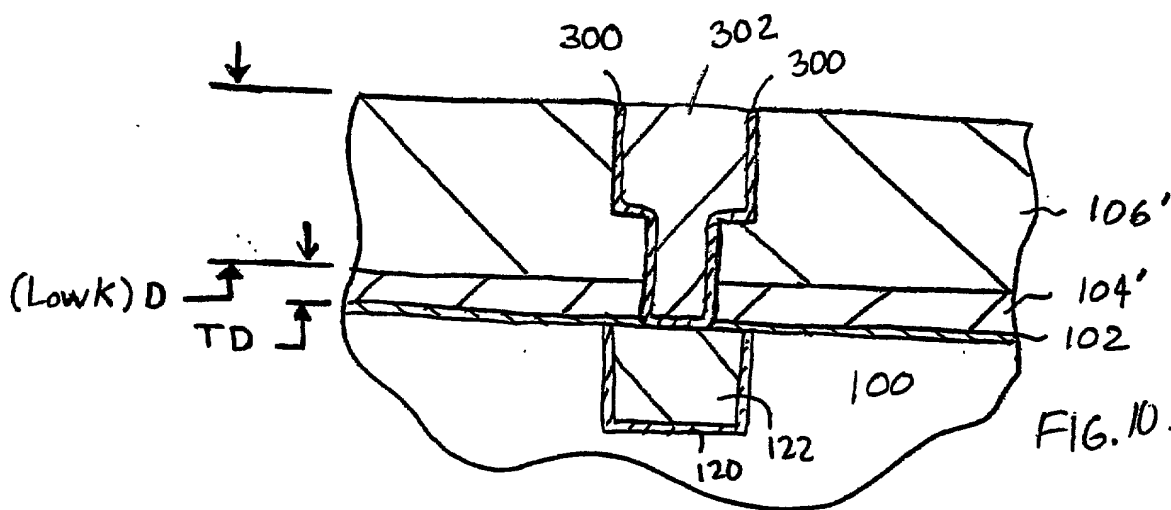


FIG. 10B

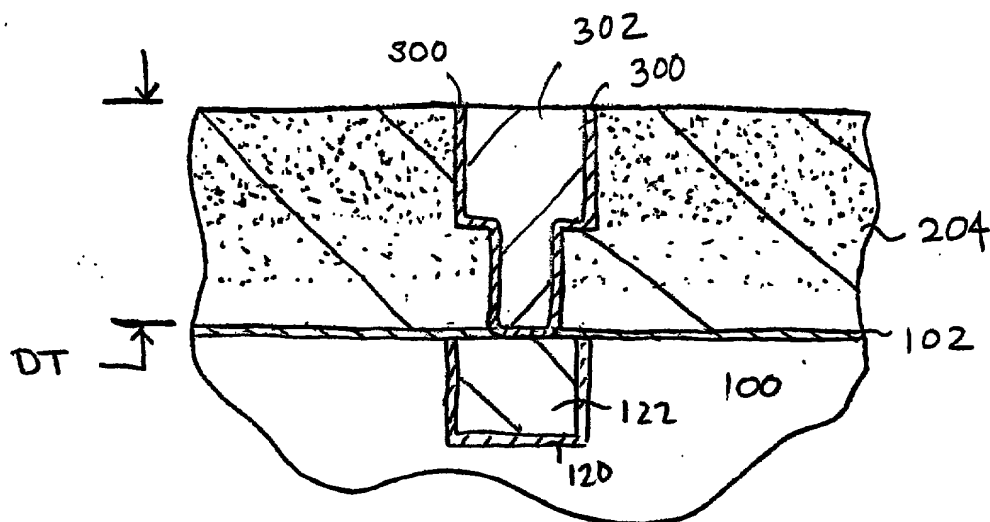


FIG. 10C